

Work Order ID 37613

June 26, 2009 10:28:51 AM



Page 1

Item ID: D3391-013
Revision ID: H
Item Name: Mid Tube Assembly

Accept



Setup Start



Stop



Start Date: 15/07/2009 Start Qty: 1.00

Required Date: 03/08/2009 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr	Revision Nbr
D3391	Rev H

100

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Cut tube to finish length as per Dwg D3391 12-Identify as D3391-013 13-Drill pilot holes using DT8796 (including "B" holes) and drill only 1 fwd saddle hole on one side only as per Dwg D3391 4-Open saddles and GHW holes to Ø0.375" except for fwd saddle hol



110

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

120

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing



Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3391-013 PAR #: _____ Fault Category: Sketches NCR: Yes ☐ No ☒ DQA: / Date: 10.05.01
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR: <u>37613</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10.02.16	100	Electric step holes don't line-up. R.C. Trans for chr. 11	CP 10.02.16 per DS1012	OPEN Ø 0.250 STEP HOLES TO Ø 0.271... Acceptable based on comparison to Ø 0.257 HOLES IN TUBE	 10-2-16	S 10/02/17	CP 10.02.16 per DS1012	S 10/02/17

NOTE: Date & initial all entries

Work Order ID 37613

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Page 2

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Customer:

Reference:

Approvals: Process Plan:
QC:

Date:
Date:

Tooling:
SPC (Y/N):

Date:
Date:

Run Start
Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130



QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00



140



Skidtubes

Skidtubes

Skidtubes

Memo

Bond web in place as per Dwg D3391 & QSI 015.: *****Ensure Web
Alignment *****

0.00

0.00



150



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

Inspect each insert using DT8821

0.00



Work Order ID 37613

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Page 3

Item ID: D3391-013
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Setup Start



Stop



Start Date: 15/07/2009 Start Qty: 1.00



Required Date: 03/08/2009 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160



Skidtubes

Skidtubes

0.00

Memo

0.00

Skidtubes

1-Weld crossbolt spacer as per dwg D3391 & QSI 0041 2-grind weld flush

170



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

180



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

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Page 4

Item ID: D3391-013
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Setup Start



Stop



Start Date: 15/07/2009 Start Qty: 1.00



Required Date: 03/08/2009 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

Use paint screws to mask inserts.START TIME: _____
TEMPERATURE: _____ FINISH TIME: _____

200

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

210

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1- insert D3391-011 into D3391-13; 2- insert T-pins into first and third fwd saddle holes; 3- ON FIRST SIDE ONLY drill out 2nd and forth fwd saddles holes to 0.500" as per DSI 9364; 4- remove T-pins and locate DT9415 from first and third crossbolt hole using

=> JLS 10/02/18 (X1)

Work Order ID 37613

June 26, 2009 10:28:52 AM



Page 5

Item ID: D3391-013
Revision ID: H
Item Name: Mid Tube Assembly

Accept



Setup Start



Stop



Start Date: 15/07/2009 Start Qty: 1.00

Required Date: 03/08/2009 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

220

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

230

HandFinishing

0.00



HandFinish

Memo

0.00

Hand Finishing

Install inserts

240

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Inspect thread of each insert using DT8821

=> M 10/02/18 (X1)

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Setup Start



Stop



Start Date: 15/07/2009 Start Qty: 1.00



Required Date: 03/08/2009 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

250



HandFinish

HandFinishing

Memo

0.00

0.00

Hand Finishing

Assemble as per dwg D3391

260



QC

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

Quality Control

270



Packaging

Identify as per dwg & Stock Location: _____

Memo

0.00

0.00

Packaging

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Stop



Start Date: 15/07/2009 Start Qty: 1.00
Required Date: 03/08/2009 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

280

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

10/02/18 *[Signature]*

ME

10-2-17

June 26, 2009 10:28:50 AM

Page 1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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[illegible]

Required Date: 03/08/2009

Required Qty: 1.00

[illegible]

Picklist Print

June 26, 2009 10:28:50 AM

Page 2

Work Order ID: 37613

Parent Item: D3391-013RevH

Parent Item Name: Mid Tube Assembly









Comments:

Start Date: 15/07/2009

Required Date: 03/08/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
✓ AN960C10L 		Purchased	No			250	Each	0.0000	10.0000			
washer ✓ AN960C416L 		Purchased	No			250	Each	0.0000	4.0000			
WASHER D3401-041RevB ✓ 		Manufactured	No			250	Each	0.0000	1.0000			
Tow Cap Assembly D3564-13RevD ✓ 		Manufactured	No			250	Each	0.0000	1.0000			
Wearshoe D3566-13RevC ✓ 		Manufactured	No			250	Each	0.0000	1.0000			
Gasket ✓ D3672-1RevB 		Manufactured	No			250	Each	0.0000	4.0000			
Phenolic Washer ✓ D3672-3RevB 		Manufactured	No			250	Each	0.0000	4.0000			
Phenolic Washer ✓ MS27039C1-09 		Purchased	No			250	Each	0.0000	4.0000			
SCREW												

June 26, 2009 10:28:50 AM

Shop Packet Print

Page 2

Date: Tuesday, 2/26/2008 8:00:14 AM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : MID TUBE ASSEMBLY
 Job Number : 37613
 Estimate Number : 11446
 P.O. Number :
 This Issue : 2/26/2008 S.O. No. :
 Prsht Rev. : NC Part Number : D3391013
 First Issue : 1/1 Type : LANDING GEAR Drawing Number : D3391 REV G
 Previous Run : 37540 Drawing Revision : G
 Material :
 Due Date : 3/31/2008 Qty: 1 Um: Each
 Written By :
 Checked & Approved By : 080226
 Comment : Est. A 05/2.13 New Issue EC
 Est. B 06.02.09 Dwg rev.D EC
 Est Rev:06-03-28 Update Manufacturing Instructions JLM
 est rev D 07.03.14 dwg Rev F EC
 Est Rev:E ECN 1056 07-11-13 DD verified by: EC

Additional Product

Job Number:



Seq. # Machine Or Operation: Description :

1.0 ✓ D25001100 Skidtube Extrusion



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

SKIDTUBE EXTRUSION

Pick:

Qty Part Number Description Batch
 1 D2500-1-100 Extrusion

Batch

245813 SL 8-2-27

2.0 ✓ D3391011 Fwd Tube Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Fwd Tube Assembly

Batch: 32630

SL 8-7-23

3.0 ✓ LANDING GEAR 1 LANDING GEAR RESOURCE 1



(010) 7

Comment: LANDING GEAR RESOURCE 1

1-Cut tube to finish length as per Dwg D3391

2-Drill pilot holes including "B" holes using DT8796 as per Dwg D3391

3-Open float bag holes as per Dwg D3391

4-C'sink float bag holes as per Dwg D3391

5-Open remaining holes as per dwg D3391

6- Locate electric step holes 41.5000" from fwd end and drill using DT 8393

SL 8-3-4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3391-013 PAR #: _____ Fault Category: Skid holes NCR: Yes No DQA: 2 Date: 10/03/01
 QA: N/C Closed: 2 Date: 10/03/31

NCR: 37613		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/03/03	H 36	electric stop holes were Drilled on the wrong side R.C. Hammerston	[Signature]	fill both holes with weld	BE 08/03/03	08/03/04	[Signature]	08/03/03
				ALUMINUM ROD m10x1.5	SL 8-3-4	08/03/04		
				grind flush	SL 8-3-4	08/03/04		
				Re-drill holes on correct side of tube	SL 8-3-4	08/03/04	[Signature]	↓

NOTE: Date & initial all entries

Date: Tuesday, 2/26/2008 8:00:15 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 37613

Part Number: D3391013

Job Number:



Seq. #:

Machine Or Operation:

Description :

- ✓ 7- Open electric step holes 0.332" per dwg D3391 (section L-L)
- 8- Open electric step holes 0.250" per dwg D3391 (section M-M)
- 9- Open electric step holes 0.250" per dwg D3391 (section LL-LL)
- 10- Remove .030" from Fwd indexing Ridge as per Dwg D3391
- 11- Remove indexing ridge on Fwd & Aft end of skidtube as per Dwg D3391
- 12- Deburr
- 13- Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.208" holes with paint marker
- 14- Open wearplate holes of D3391-013 assembly detail section G-G to Ø0.250" (14 holes) as per Dwg D3391
- 15- Open wearplate holes of D3391-013 assembly detail section H-H to Ø0.257" and c'sink (20 holes) as per Dwg D3391
- 16- Open .375" holes to .438"
- 17- insert D3391-011 and clico in place with wearplate holes, transfer drill saddle holes as per dwg D3391.
- 18- C'sink holes for crossbolt spacers.
- 19- Deburr and blow out all chips from inside tube

SL 8-3-4

SL 8-7-23

4.0 ✓ QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

08/2/03

5.0 ✓

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

Touch-up alodine in D3391-011

SL 8-7-23

6.0 ✓

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

08/07/23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 2/26/2008 8:00:15 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 37613

Part Number: D3391013

Job Number:



Seq. #: Machine Or Operation:

Description:

7.0



D33891

Web



(P10) →

Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

WEB

Pick:

Qty	Part Number	Description	Batch
1	D3389-1	Web	40558
A/R		Sikaflex-241/-291	107588

Sikaflex expire date: 8-11-1

Start: 8-7-23 Time: 2:10

Finish: 8/7/24 Time: 8:10 AM

SL 8-7-23

8.0



LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

Bond web in place as per Dwg D3391 & QSI 015.

*****Ensure Web Alignment *****

SL 8-7-23

9.0



QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Inspect each insert using DT8821

S 8/7/24 (XL)

10.0



LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

Weld crossbolt spacer as per dwg D3391 & QSI 004

AR M108046

BE 08/07/24 CASALTS B35738 (RE)

11.0



QC9 QCL10

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

S 08/07/29 (XL)

12.0



QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 08/07/29 (XL)

13.0



POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

Use paint screws to mask inserts.

pressure wash m-h 08/11/24 (12)

M108523

M109152 m-h 08/11/13 (12)

W/O: 37613		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3391-013 PAR #: _____ Fault Category: Prod/Sk.d tubes NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
	<u>7-0</u>	<u>0.250 hole section 4</u> <u>were drilled at 0.375"</u> <u>EC operator didn't follow</u> <u>ipp/Draw.</u>	<u>[Signature]</u>	<u>Fill the 2 holes with weld pro-seal,</u> <u>and plug the inside to ensure no</u> <u>weld craters in the tube, to avoid</u> <u>interference with the alt tube.</u> <u>A/R to m/b 0916</u>	<u>SE</u> <u>08/02/27</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>1</u> <u>08/07/28</u>

NOTE: Date & initial all entries

Date: Tuesday, 2/26/2008 8:00:15 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 37613

Part Number: D3391013

Job Number:



Seq. #: ☒ Machine Or Operation:

Description:

14.0 ☒ QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

FL 08/07/30 (P)

15.0 ☒ ALS41032130

Insert



Comment: Qty.: 24.0000 Each(s)/Unit Total: 24.0000 Each(s)

INSERT

batch: m105819

or equivalent

per QSI 017

FL

16.0 ☒ ALS4428165

Inserts



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Inserts

batch: m6989

FL

17.0 ☒ D36721

PHENOLIC WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

PHENOLIC WASHER

batch: B39275

FL

18.0 ☒ D36723

PHENOLIC WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

PHENOLIC WASHER

batch: B34471

FL

19.0 ☒ AN960C10L

washer



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

WASHER

batch: m108672

FL

20.0 ☒ AN960C416L

WASHER



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

WASHER

batch: m107008

FL 08/07/30 (P)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 2/26/2008 8:00:15 AM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: MID TUBE ASSEMBLY

Job Number: 37613

Part Number: D3391013

Job Number:



Seq. #:

Machine Or Operation:

Description :

21.0

✓ MS27039C109

SCREW



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

SCREW

batch: m17831

FL

22.0

✓ MS27039C408

SCREW



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

SCREW

batch: m17831

FL

23.0

✓ HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Assemble as per dwg D3391

FL 08/07/30 B

24.0

✓ QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 08/07/30 (X)

~~Q10~~ U/A

25.0

✓ PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

w/0375det

26.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion ✓



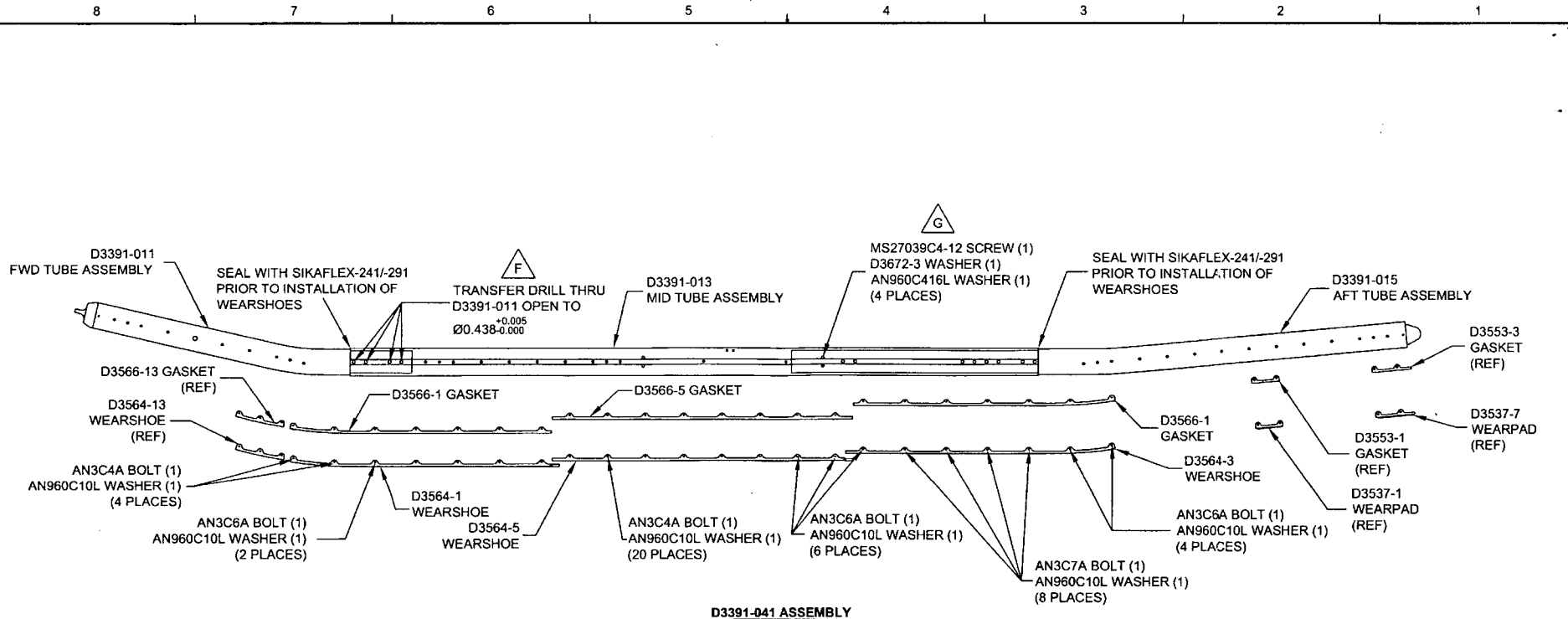
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08-11-11	240							

NOTE: Date & initial all entries



D3391-041 ASSEMBLY

RELEASED
07-11-06

D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
X	D3391-041	FLOAT SKIDTUBE ASSEMBLY
1	D3391-011	FWD TUBE ASSEMBLY
1	D3391-013	MID TUBE ASSEMBLY
1	D3391-015	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
2	D3566-1	GASKET
1	D3566-5	GASKET
4	D3672-3	WASHER
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER
4	MS27039C4-12	SCREW
4	AN960C416L	WASHER

GENERAL NOTES

- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
 - 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
UNITS: INCHES UNLESS OTHERWISE NOTED
USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.

G	REPLACE NAS INSERTS W/ AELS INSERTS SWITCH TO D3670-XXXX SPACERS FOR INSTALLING FLOAT BAGS, DWG REORGANIZED FOR CLARITY	DC	07.07.31
F	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011-021	PH	07.01.18
E	CHANGE TOLERANCE, EASE MANUFACTURE	PH	06.04.25
D	UPDATE TOLERANCE, CHANGE HOLE SIZE	PH	06.01.23
C	LENGTHEN AFT EXTENSION	PH	05.09.27
B	DRAWING UPDATES	PH	05.06.10
A	NEW ISSUE	PH	05.02.07
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN	JK		
CHECKED	B		
MFG. APPR.	SE		
APPROVED	PH		
DE APPR.	PH		
DATE	07.07.31		

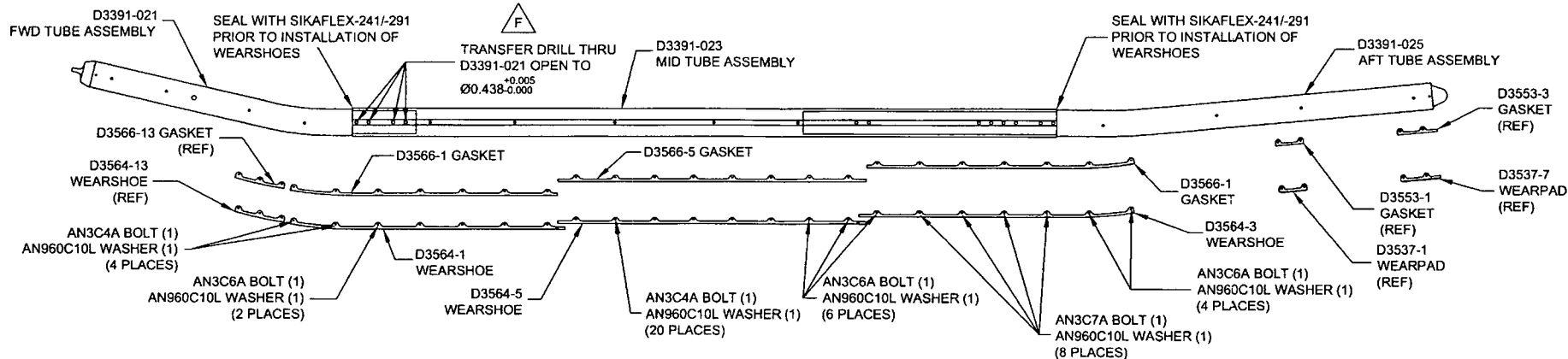
DART AEROSPACE USA, INC
PORT HADLOCK, WA

DRAWING NO. D3391
SHEET 1 OF 8

TITLE 412 FLOAT SKIDTUBE
SCALE NTS

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NO. 137613



D3391-043 ASSEMBLY

RELEASED
07.11.94

D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

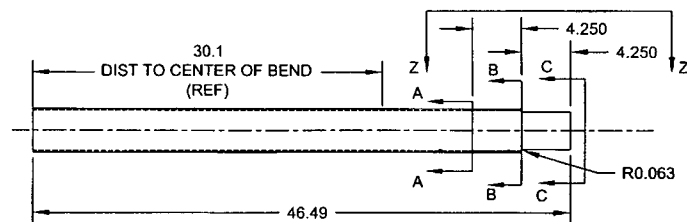
QTY	PART NUMBER	DESCRIPTION
1	D3391-043	FLOAT SKIDTUBE ASSEMBLY
1	D3391-021	FWD TUBE ASSEMBLY
1	D3391-023	MID TUBE ASSEMBLY
1	D3391-025	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
2	D3566-1	GASKET
1	D3566-5	GASKET
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER

GENERAL NOTES

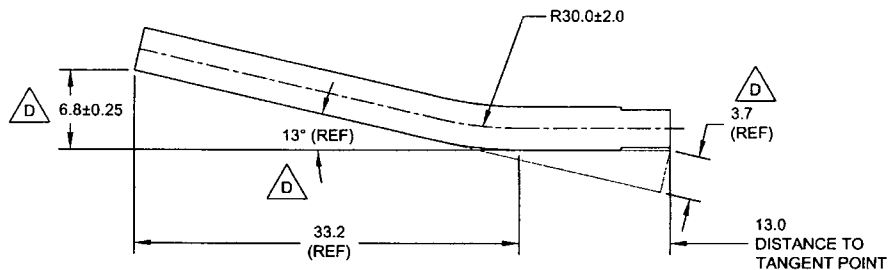
- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH
AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH
LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS
OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES
FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT
WHERE INDICATED.

DESIGN	PH	DART AEROSPACE USA, INC	
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CHECKED	JS	DRAWING NO.	REV. G
MFG. APPR.	PH	D3391	SHEET 2 OF 8
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DE APPR.	PH	412 FLOAT SKIDTUBE	NTS
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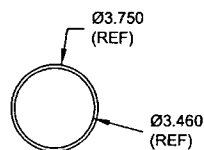
SHOP COPY
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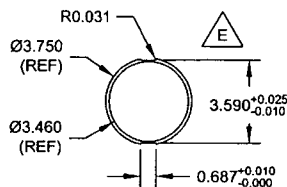
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



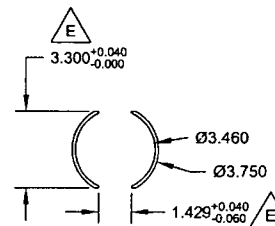
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



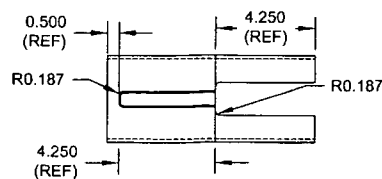
SECTION A-A
(SCALE 1:5)



SECTION B-B
(SCALE 1:5)



SECTION C-C
(SCALE 1:5)

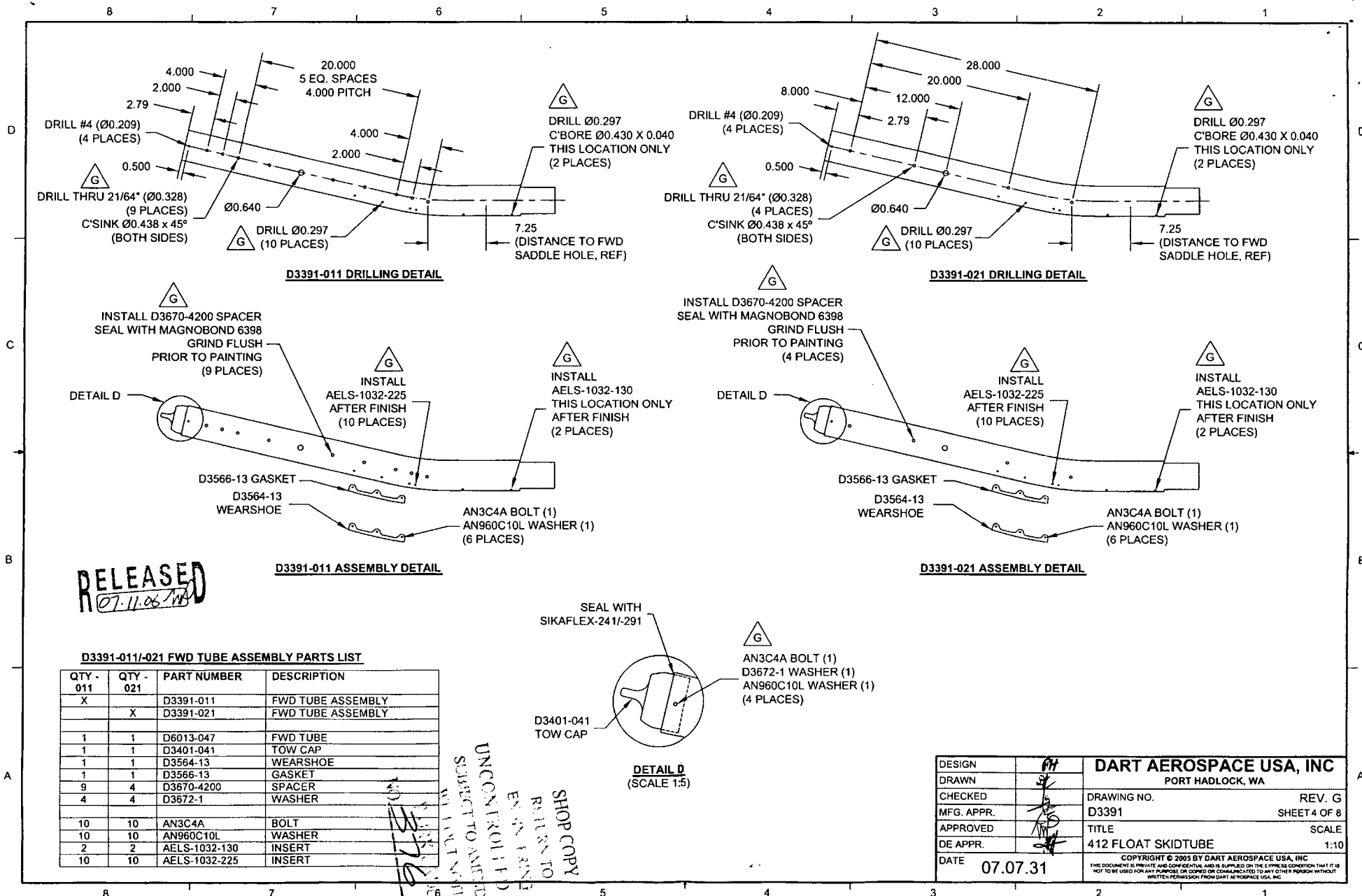


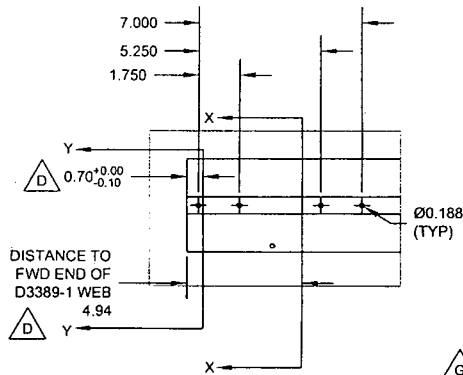
VIEW Z-Z
(SCALE 1:5)

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07-11-2014

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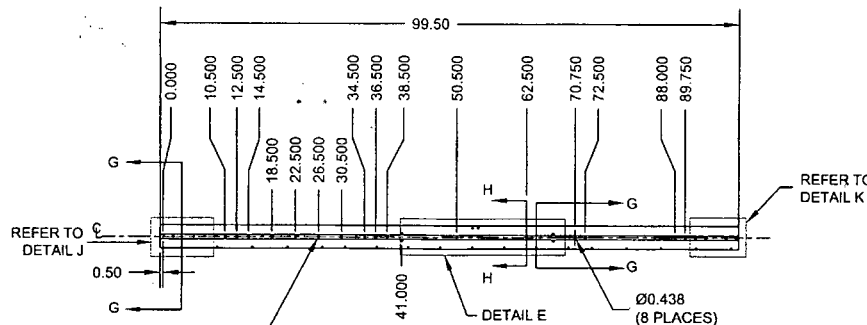
DESIGN		DART AEROSPACE USA, INC
DRAWN	SH	PORT HADLOCK, WA
CHECKED	SC	DRAWING NO. REV. G
MFG. APPR.	CE	D3391 SHEET 3 OF 8
APPROVED	TH	TITLE SCALE
DE APPR.		412 FLOAT SKIDTUBE 1:10
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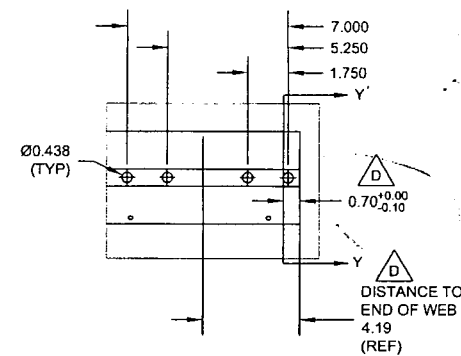


DETAIL J
(SCALE 1:5)

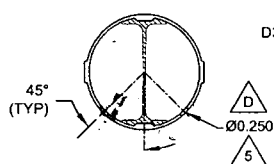
DRILL THRU 21/64" (Ø0.328)
C'SINK Ø0.438 X 45° (BOTH SIDES)
(12 PLACES)



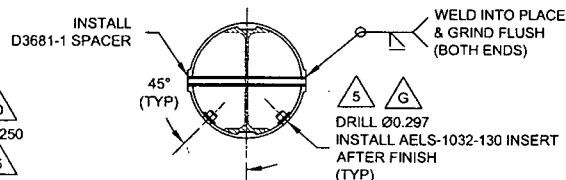
D3391-013 ASSEMBLY DETAIL



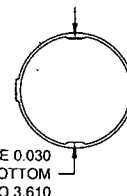
DETAIL K
(SCALE 1:5)



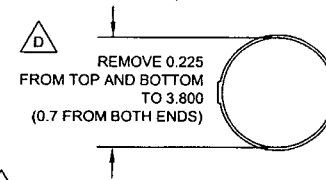
SECTION G-G
(SCALE 1:4)



SECTION H-H
(SCALE 1:4)

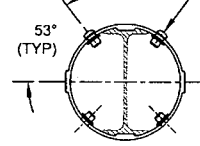


SECTION X-X
(SCALE 1:4)



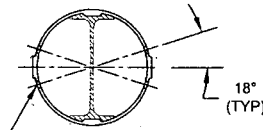
SECTION Y-Y
(SCALE 1:4)

DRILL Ø0.297
INSTALL AELS-1032-130 INSERT
MS27039C1-09 SCREW
D3672-1 WASHER
AN960C10L WASHER
AFTER FINISH
(TYP 4 PLACES)



SECTION M-M
(SCALE 1:4)

DRILL Ø0.250
(TYP 4 PLACES)



SECTION L-L
(SCALE 1:4)

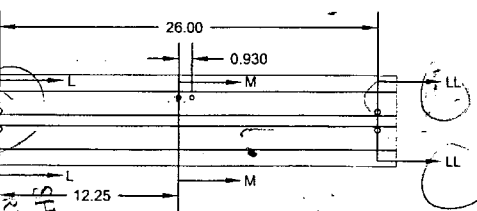
D3391-013 MID TUBE ASSEMBLY PARTS LIST

QTY	PART NUMBER	DESCRIPTION
-013		
X	D3391-013	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
12	D3681-1	SPACER
4	D3672-1	WASHER
4	D3672-3	WASHER
24	AELS-1032-130	INSERT
4	ALS4-428-165	INSERT
4	AN960C10L	WASHER
4	AN960C416L	WASHER
4	MS27039C1-09	SCREW
4	MS27039C4-08	SCREW

D3391-013 MID TUBE ASSEMBLY

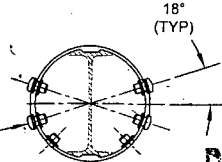
- MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/291 PER QSI 015
- WELDING: PER DART QSI 004

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DETAIL E
(SCALE 1:8)

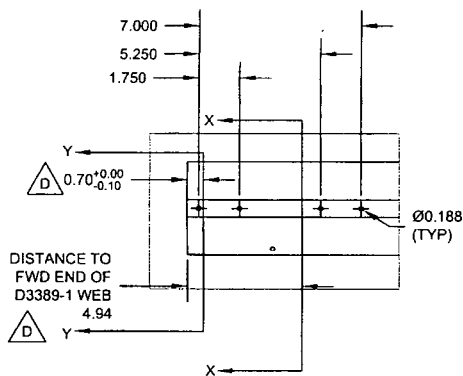
DRILL Ø0.391
INSTALL ALS4-428-165 INSERT
MS27039C4-08 SCREW
D3672-3 WASHER
AN960C416L WASHER
AFTER FINISH
(TYP 4 PLACES)



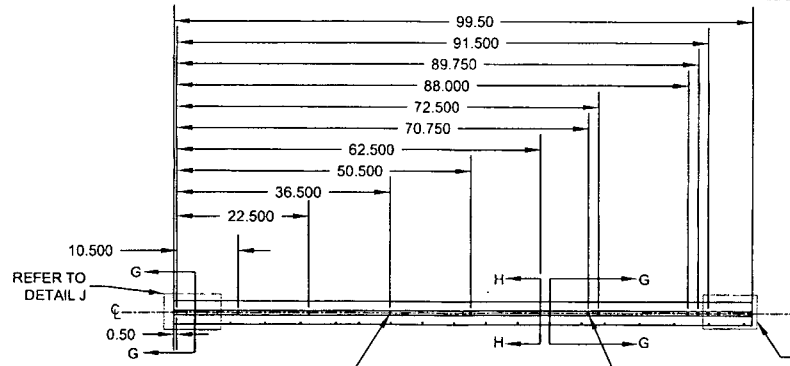
SECTION L-L
(SCALE 1:4)

RELEASED
07.11.07

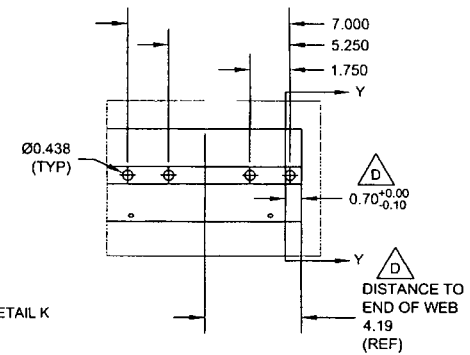
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	DF	PORT HADLOCK, WA	
CHECKED	h	DRAWING NO.	REV. G
MFG. APPR.	h	D3391	SHEET 5 OF 8
APPROVED	h	TITLE	SCALE
DE APPR.	h	412 FLOAT SKIDTUBE	1:20
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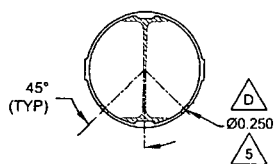
DETAIL J
(SCALE 1:5)



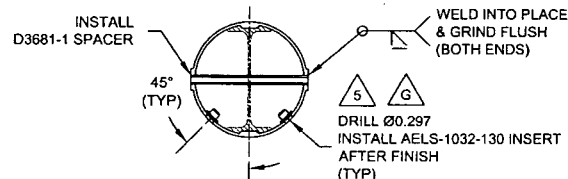
D3391-023 ASSEMBLY DETAIL



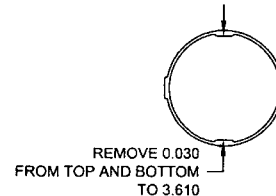
DETAIL K
(SCALE 1:5)



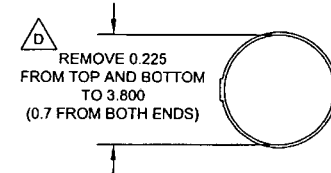
SECTION G-G
(SCALE 1:4)



SECTION H-H
(SCALE 1:4)



SECTION X-X
(SCALE 1:4)



SECTION Y-Y
(SCALE 1:4)

D3391-023 MID TUBE ASSEMBLY PARTS LIST

QTY - 023	PART NUMBER	DESCRIPTION
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

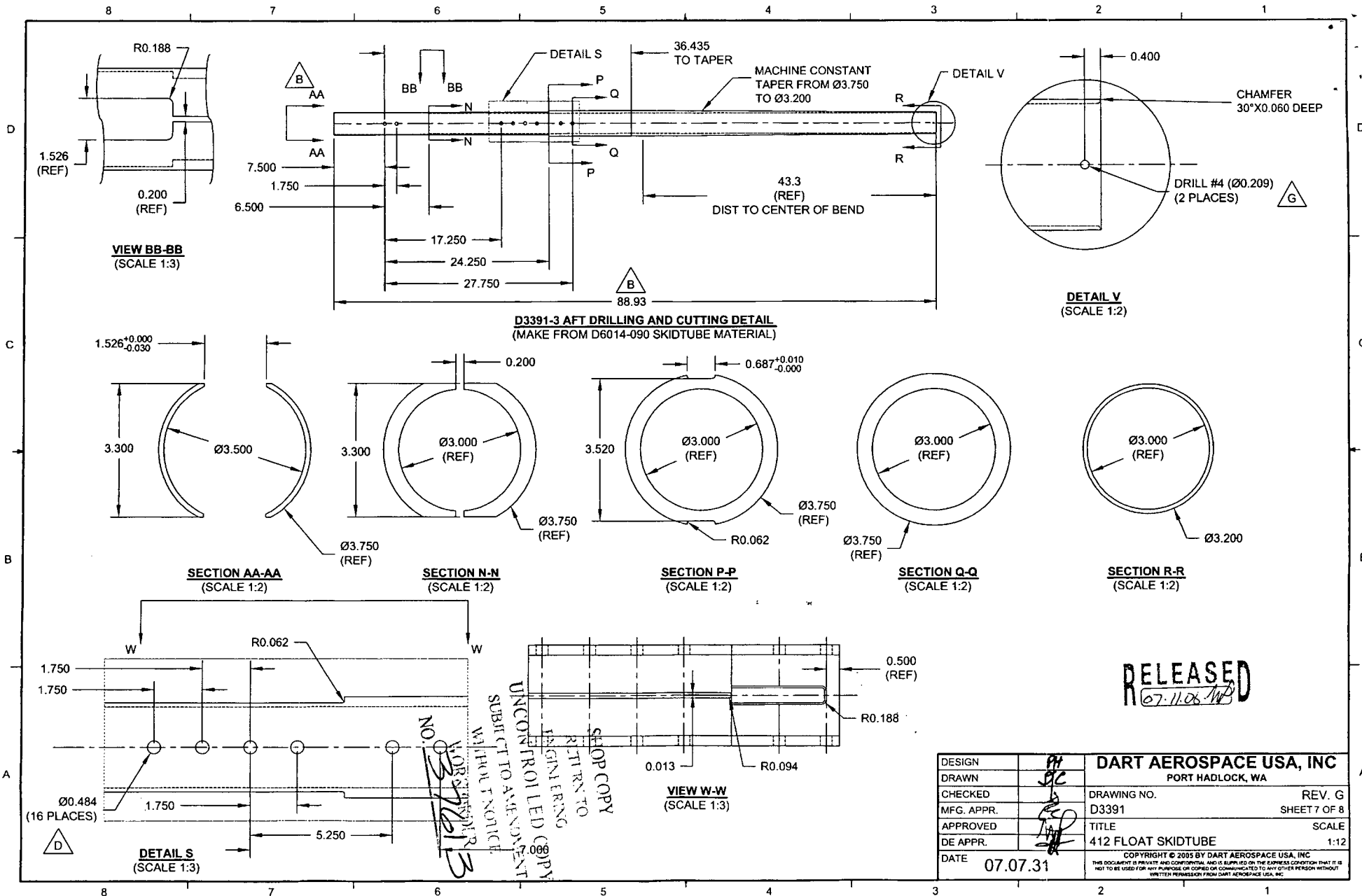
D3391-023 MID TUBE ASSEMBLY

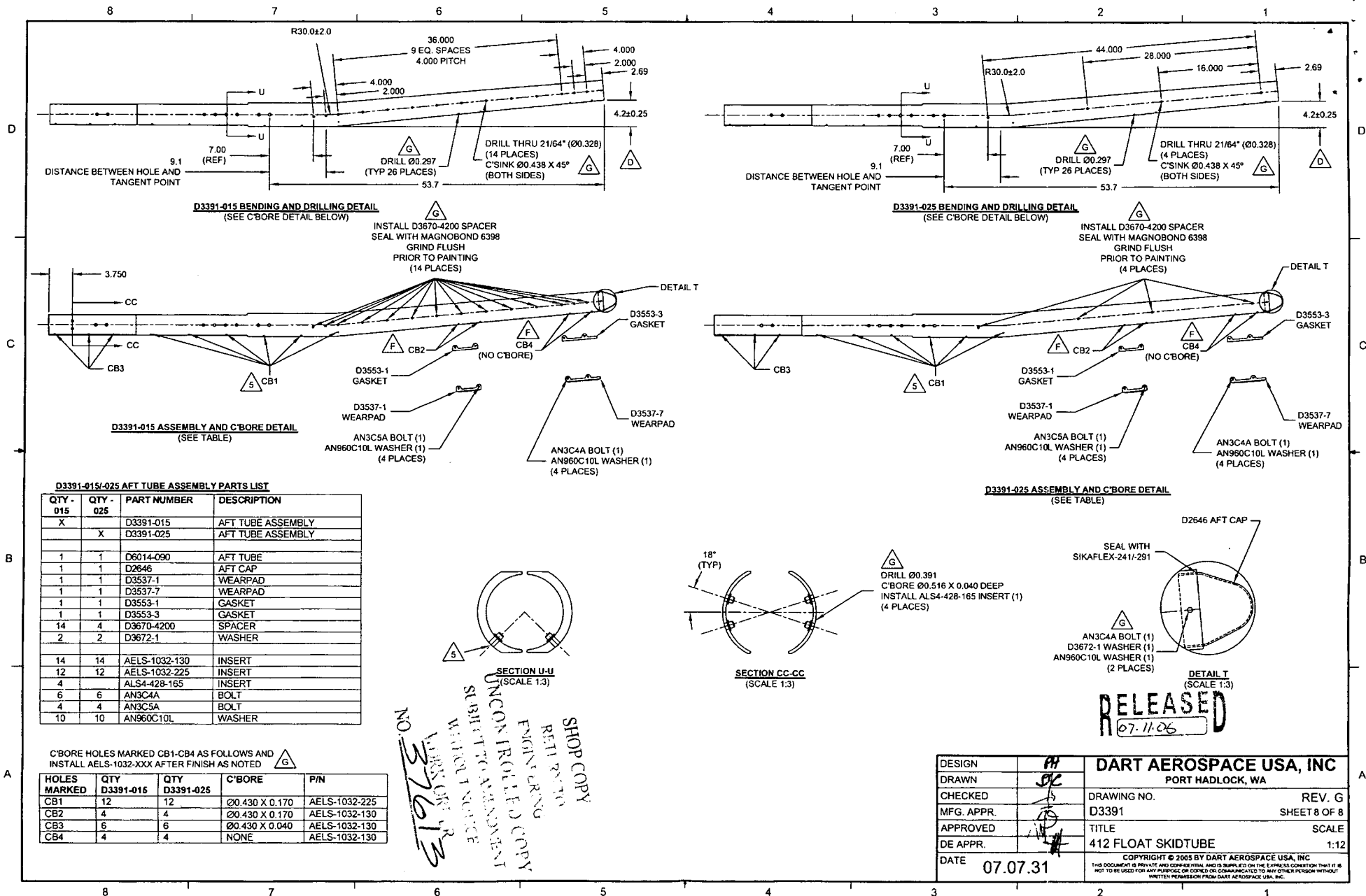
- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/291 PER QSI 015
- 3) WELDING: PER DART QSI 004

RELEASED
07.11.06/11

DESIGN	PH	DART AEROSPACE USA, INC
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NO. 164

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliot
Job number: 376130
Part number: D3391013
Description: Mid tube ass.
Welding Process: Tig[☒] Mig[]
Base materiel: Aluminium
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier P. D. L. Date of Test Coupon 08-07-29
Welder Barclay Elliot Date of Test Coupon 08-07-29

The above named individual is qualified in accordance with AWS D17.1.2001 to weld